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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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May 17, 2002

Mike Glasson, Environmental Coordinator
Andalex, Resources
P. O. Box 902
Price, Utah 84501

Re: Conditional Approval of Mathis Tract, Andalex Resources Inc. Centennial Project Mine, C/007/019-IB02A, Outgoing File

Dear Mr. Glasson:

The above-referenced amendment is conditionally approved upon receipt of updated C1-C2 forms and five clean copies of the redlined text in the March 13, 2002, and April 24, 2002 submittals prepared for incorporation. Please submit these copies by June 14, 2002. Once we receive these copies, final approval will be granted, at which time you may proceed with your plans.

A stamped incorporated copy of the approved plans will also be returned to you at that time, for insertion into your copy of the Mining and Reclamation Plan. A copy of our Technical Analysis is enclosed.

If you have any questions, please call me at (801) 538-5325 or Greg at (801) 538-5260.

Sincerely,

Daron R. Haddock
Permit Supervisor

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Enclosure
cc: Price Field Office
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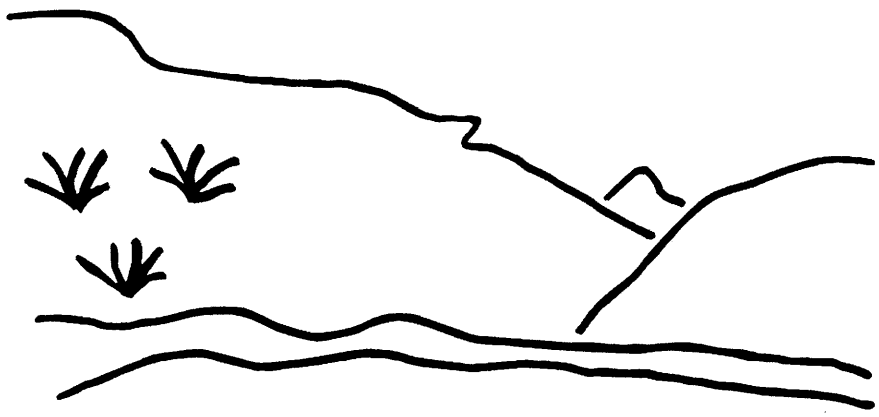
State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Centennial Project
Mathis Tract
C/007/019-IB02A-1
Technical Analysis
May 15, 2002

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TECHNICAL ANALYSIS

INTRODUCTION

On March 13, 2002, the Division received an application to include the 240-acre Mathis tract as an Incidental Boundary Change (IBC) to the currently approved Centennial Project Permit Area. The application was returned to the Applicant with deficiencies on April 22, 2002, and resubmitted to the Division on April 24, 2002. The Mathis tract contains both fee land and coal. The coal in the Mathis Tract has overburden ranging from 2,600 feet to 2,900 feet. The 240-acre Mathis tract amounts to a 4.64 percent increase in the Centennial Project permit area, lies within the current Cumulative Hydrologic Impact Assessment (CHIA) area, and does not include operations in hydrologic basins other than currently approved. The permit change qualifies as an IBC.

The mine plan for the Mathis Tract involves the acquiring additional State and Federal leases. The Division will evaluate the mine plan on the assumption that the Applicant acquires the State and Federal leases. If they do not then the Division will require that the Applicant modify the mine plan. The application can be approved in its current form.

INTRODUCTION

GENERAL CONTENTS

IDENTIFICATION OF INTERESTS

Regulatory Reference: 30 CFR 773.22; 30 CFR 778.13; R645-301-112

Minimum Regulatory Reference:

The operator of the coal mine and all owners and controllers of the operation must be identified by name and address. The Division with the Applicant/Violator System must crosscheck the information provided and other sources such as DOGM inspection and enforcement records, State corporation commission or tax records. If the Division identifies any errors in the ownership or control information, the applicant must be contacted to resolve the matter immediately. If the Division discovers that none of the persons identified in the application has had any previous mining experience, the applicant will be contacted to verify this fact.

The Applicant/Violator System will be updated with new information received by the Division.

Analysis:

All owners and controllers of the mine operation were identified by name and address and confirmed to be current during the January permit renewal. No additional information is necessary.

Findings:

The information provided in the application is adequate to meet the minimum requirements of the Identification of Interests section of the regulations.

VIOLATION INFORMATION

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

Minimum Regulatory Reference:

The application must inform the Division of any of the following:

(1) State or Federal permits suspension or revocation;
(2) Bond or other security forfeiture in the last five years;
(3) Any State or Federal violations received in the last three years by the applicant or any subsidiary, affiliate, or persons controlled by or under common control with the applicant. All outstanding violations (regardless of date) must also be disclosed.

The Division will review all available information and will not issue a permit if any operation owned or controlled by the applicant or linked to the applicant is in violation of SMCRA or the State Program or any State or Federal environmental law.

The Division will notify the applicant of the violation, suspension or forfeiture hindering their current application for permit and give the applicant an opportunity to rebut the findings. The Division will keep the Applicant Violator System updated.

Analysis:

Current compliance information for Andalex Resources, Inc. and affiliate operations has been updated. The information is found in the MRP Appendix B, Attachment I-1. The time period of the information is from 1997 through April 10, 2002.

Findings:

The information provided is adequate to meet the minimum requirements of the General Contents - Violation Information section of the regulations

RIGHT OF ENTRY

Regulatory Reference: 30 CFR 778.15; R645-301-114

Minimum Regulatory Reference:

Documents giving legal right to enter the permit area must be detailed in the application by date, type of document, land description and rights claimed. Any pending litigation over these legal rights must be disclosed.

The written consent of the landowner for the extraction of the coal by surface mining methods must also be included when the surface and mineral owners are different. Also a copy of the conveyance that grants the legal authority to extract the coal by surface methods will be included.

The Division does not have the authority to adjudicate property rights disputes.

Analysis:

The Right of Entry information is outlined in a document being added to the MRP named 'Memorandum of Mathis Lease to Appendix J'. As outlined, the term of the lease is January 1998 through December 2007. The details of the Mathis Tract IBC are also referenced in Section R645-301-114 of the application. The rights include both surface and subsurface leases from the Mathis Land Company in S ½ S ½, S ½ N ½ S ½, of Section 36, T12S, R10E, SLM, Utah, containing 240 acres.

Findings:

The information provided in the application is adequate to meet the minimum requirements of the Right of Entry section of the regulations.

LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS

Regulatory Reference: 30 CFR 778.16; 30 CFR 779.12(a); 30 CFR 779.24(a)(b)(c); R645-300-121.120; R645-301-112.800; R645-300-141; R645-301-115.

Minimum Regulatory Reference:

The application will describe and identify the lands (on a map) subject to coal mining over the life of the operation, including the size, sequence, and timing of the mining anticipated and permit boundaries. Coal mining and reclamation operations may only occur on the lands identified on the maps submitted and that are subject to the performance bond.

A public notice advertisement will contain a map or description of the precise location and boundaries of the proposed permit area. So that local residents can identify the area, the map must have a north arrow and may include local landmarks.

Analysis:

A revised Plate 29 has been submitted which outlines the existing coal lease boundary, and includes the size, sequence, and timing of the proposed mining. No additional information is necessary.

Findings:

The information provided in the application is adequate to meet the minimum requirements of the Legal Description and Status of Unsuitability Claims section of the regulations.

PERMIT TERM

Regulatory References: 30 CFR 778.17; R645-301-116.

Minimum Regulatory Reference:

The application will describe and identify the lands (on a map) subject to coal mining over the life of the operation, including the size, sequence, and timing of the mining anticipated and permit boundaries. Coal mining and reclamation operations may only occur on the lands identified on the maps submitted and that are subject to the performance bond.

A public notice advertisement will contain a map or description of the precise location and boundaries of the proposed permit area. So that local residents can identify the area, the map must have a north arrow and may include local landmarks.

Analysis:

The mine permit was recently renewed. Current permit term is effective January 5, 2002, and expires on January 6, 2007.

The Applicant proposes to add 240 acres to their existing permit area, which increases the acreage from 5175 acres to 5415 acres. The 240-acreMathis Lease is considered an incidental boundary change (IBC).

The Mathis lease is located in the southern part of Section 36, Township 12 South, Range 10 East. The location of the Mathis lease is shown on several maps including Plate 4 Centennial Project Leases.

Findings:

The information provided in the application is adequate to meet the minimum requirements of the Permit Term section of the regulations.

PUBLIC NOTICE AND COMMENT

Regulatory References: 30 CFR 778.21; 30 CFR 773.13; R645-300-120; R645-301-117.200.

Minimum Regulatory Reference

After the application has been determined "administratively complete," an advertisement must be placed in a local newspaper of general circulation in the locality of the proposed surface coal mining and reclamation operation at least once a week for four consecutive weeks. A copy of the advertisement as it will appear in the newspaper will be submitted to the regulatory authority.

At a minimum, the following will be included in the ad:

(1) The name and business address of the applicant.
(2) A map or description.
(3) The location where a copy of the application is available for public inspection.
(4) The name and address of the Division where written comments, objections, or requests for informal conferences on the application may be submitted.
(5) If an applicant seeks a permit to mine within 100 feet of the outside right-of-way of a public road or to relocate or close a public road, except where public notice and hearing have previously been provided for this particular part of the road; a concise statement describing the public road, the particular part to relocated or closed, and the approximate timing and duration of the relocation or closing.
(6) If the application includes a request for an experimental practice, a statement indicating that an experimental practice is requested and identifying the regulatory provisions for which a variance is requested.

The Division will notify in writing local governmental agencies and all Federal or State governmental agencies involved in or with an interest in the permit process.

Documentation of the public notice and comment period required for the Permit should be incorporated as part of the Permit.

Analysis:

A public notice and comment period was not required for the requested amendment application. No public notice was submitted.

Findings:

No additional information was required for the current application.

FILING FEE

Regulatory Reference: 30 CFR 777.17; R645-301-118.

Analysis:

No filing fee is required for an Incidental Boundary Change (IBC).

Findings:

No filing fee is required.

MAPS AND PLANS

Regulatory Reference: 30 CFR 777.14; R645-301-140.

Analysis:

The following maps have been revised and submitted as part of the application:

- Plate 1 General Location
- Plate 2 Surface Ownership
- Plate 3 Mineral Ownership
- Plate 4 Centennial Project Leases
- Plate 21 Surface Geology
- Plate 22 Geologic Cross Section and Drill Hole Reference
- Plate 25 Subsidence Monitoring Station
- Plate 29 Isopachs, Current Mining, Mining Projections, Cover, and Drill hole Location
- Plate 34 Wildlife Distribution

Errors in Plate 3 and Plate 4 have been modified for the current submittal. State ownership is now clearly defined on the two plates. Figure 7 of the Mayo and Associates report also has been modified to correctly identify the Mathis tract as containing 240-acres.
Affected Area Boundary Maps

The Division usually considers the affected area to be the same as the permit area. The Division has no reason to find that the affected area and the permit area are different. Several maps submitted with the IBC show the proposed revision to the permit boundaries including Plate 1-A. These maps are adequate for the Division to identify the location of the Mathis lease.

The legal description of the Mathis Lease is given in Section R645-301-114 of the IBC application

Existing Structures and Facilities Maps

The Permittee did not include a map the shows any existing structures of facilities in the Mathis Tract. The Permittee did state in subscribes 645-301-526.100 of the PAP that no existing structures in the Mathis lease

Existing Surface Configuration Maps

The Permittee included several maps that show the topography for the Mathis lease. Plate I shows the contours that appear to be based on USGS topographic maps. Because no surface facilities will be constructed and the only expected surface disturbance is subsidence detailed pre-mining, operational and post-mining topographic maps are not needed. The contour lines from the USGS are adequate to show the existing surface topography.

Mine Workings Maps

Plate 29, Isopachs, Current Mining, Mining Projections, Cover, Drillhole Locations, shows the past, present and proposed mine workings. The proposed mine workings are based on the assumption that both Federal and State leases will be acquired.

Permit Area Boundary Maps

Several maps included in the PAP show the proposed changes to the permit boundary including Plate A-1. The legal description of the Mathis Lease is given in Section R645-301-114 of the application.

Surface and Subsurface Ownership Maps

Plate 2 and Plate 3 show surface and mineral ownership respectfully.

Surface and subsurface manmade features maps

The Permittee did not submit a map that is specifically labeled surface and subsurface manmade features map. As noted in section R645-301-526.110 no structures exist in the Mathis lease.

Contour Maps

The Permittee included several maps that show the topography for the Mathis lease. Plate I shows the contours that appear to be based on USGS topographic maps. Because no surface facilities will be constructed and the only expected surface disturbance is subsidence detailed pre-mining, operational and post-mining topographic maps are not needed.

Findings:

The information provided in the application is adequate to meet the minimum requirements of the General Contents – Maps and Plans section of the regulations.

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

PERMIT AREA

Regulatory Requirements: 30 CFR 783.12; R645-301-521.

Minimum Regulatory Requirements:

Describe and identify the lands subject to surface coal mining operations over the estimated life of those operations and the size, sequence, and timing of the subareas for which it is anticipated that individual permits for mining will be sought.

Analysis:

The amendment to add the Mathis Lease IBC to the permit does not significantly affect the permit area. The 240-acre tract increases the size of the permit area by approximately 4.6 percent. Plate 29 has been modified to illustrate the current Mining Projections.

Findings

The information provided in the application is adequate to meet the minimum requirements of the Environmental Resource Information – Permit Area section of the regulations.

VEGETATION RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.19; R645-301-320.

Minimum Regulatory Requirements:

Provide a map that delineates existing vegetative types and a description of the plant communities within the area affected by surface operations and facilities and within any proposed reference area. The description shall include information adequate to predict the potential for reestablishing vegetation. The map or aerial photograph is required, sufficient adjacent areas shall be included to allow evaluation of vegetation as important habitat for fish and wildlife for those species of fish and wildlife as identified under the fish and wildlife resource information.

Analysis:

The Vegetation Resource map currently in the MRP addresses only the vegetation in the Disturbed Area and three reference areas. This is referenced in a survey and report submitted as required for State Regulations R645-301-321. The provided information does an adequate job of classifying the vegetation in the disturbed area. However, a vegetation map of the entire permit area and adjacent areas on a scale of 1:6,000 or larger is not included in the MRP, nor has it been otherwise exempted by the Division.

The applicant has made a commitment to create a current vegetation map for the permit area in Section R645-301-310 on page 64 of the current MRP. The map will be created using new and/or currently available aerial photography with fieldwork conducted as a means of ground-truthing. Field verification will be conducted during the 2002, growing season. The final vegetation map will be provided to the State of Utah no later than December 2002.

Findings:

The information provided in the application is adequate to meet the minimum requirements of the Vegetation Resource Information section of the regulations.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.21; R645-301-322.

Minimum Regulatory Reference:

The application shall include fish and wildlife resource information for the permit area and adjacent area. The scope and level of detail for such information shall be determined by the Division in consultation with State and Federal agencies with responsibilities for fish and wildlife and shall be sufficient to design the protection and enhancement plan required under the operation and reclamation plan.

Site-specific resource information necessary to address the respective species or habitats shall be required when the permit area or adjacent area is likely to include:

(1) Listed or proposed endangered or threatened species of plants or animals or their critical habitats listed by the Secretary under the endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), or those species or habitats protected by similar State statutes;
(2) Habitats of unusually high value for fish and wildlife such as important streams, wetlands, riparian areas, cliffs supporting raptors, areas offering special shelter or protection, migration routes, or reproduction and wintering areas; or
(2) Other species or habitats identified through agency consultation as requiring special protection under State or Federal law.

Analysis:

The existing Wildlife Distribution map has been modified and extended to include the IBC area. No additional information is necessary for the current application.

Findings:

The information provided in the application is adequate to meet the minimum requirements of the Fish and Wildlife Information section of the regulations.

SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.21; 30 CFR 817.22; 30 CFR 817.200(c); 30 CFR 823; R645-301-220; R645-301-411.

Minimum Regulatory Requirements:

Provide adequate soil survey information on those portions of the permit area to be affected by surface operations or facilities consisting of a map delineating different soils, soil identification, soil description, and present and potential productivity of existing soils.

Where selected overburden materials are proposed as a supplement or substitute for topsoil, provide results of the analysis, trials and tests required. Results of physical and chemical analyses of overburden and topsoil must be provided to demonstrate that the resulting soil medium is equal to or more suitable for sustaining revegetation than the available topsoil, provided that trials and tests are certified by an approved laboratory. These data may be obtained from any one or a combination of the following sources: U.S. Department of Agriculture Soil Conservation Service published data based on established soil series; U.S. Department of Agriculture Soil Conservation Service Technical Guides; State agricultural agency, university, Tennessee Valley Authority, Bureau of Land Management or U.S. Department of Agriculture Forest Service published data based on soil series properties and behavior; or, results of physical and chemical analyses, field site trials, or greenhouse tests of the topsoil and overburden materials (soil series) from the permit area. If the permittee demonstrates through soil survey or other data that the topsoil and unconsolidated material are insufficient and substitute materials will be used, only the substitute materials must be analyzed.

Analysis:

No additional Surface disturbance is proposed in the current application. No additional information is necessary.

Findings:

The information provided in the application is adequate to meet the minimum requirements of the Soils Resource Information section of the regulations.

LAND-USE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.22; R645-301-411.

Minimum Regulatory Requirements:

Provide a statement of the condition; capability, and productivity of the land that will be affected by surface operations and facilities within the proposed permit area.

Provide a map and supporting narrative of the uses of the land existing at the time of the filing of the application. If the premining use of the land was changed within 5 years before the anticipated date of beginning the proposed operations, the historic use of the land shall also be described.

The narrative of land capability and productivity must include the capability of the land before any mining to support a variety of uses, giving consideration to soil and foundation characteristics, topography, vegetative cover, and the hydrology of the area proposed to be affected by surface operations or facilities.

Describe the productivity of the area proposed to be affected by surface operations and facilities before mining, expressed as average yield of food, fiber, forage, or wood products from such lands obtained under high levels of management. The productivity shall be determined by yield data or estimates for similar sites based on current data from the U.S. Department of Agriculture, State agricultural universities, or appropriate State natural resources or agricultural agencies.

The application must state whether the proposed permit area has been previously mined. If so, provide the following

information, if available: the type of mining method used; the coal seams or other mineral strata mined; the extent of coal or other minerals removed; the approximate dates of past mining; and, the uses of the land preceding mining.

The application shall provide a description of the existing land uses and land-use classifications under local law, if any, of the proposed permit and adjacent areas.

Analysis:

No changes have been made to the Land-use Resource Information, and none are anticipated due to the proposed addition of the Mathis IBC. The land is presently used only for grazing, wildlife habitat, and outdoor recreation. Historically, the land has also been used for coal mining.

Findings

No additional information is required due to the current application.

GEOLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.22; R645-301-623, -301-724.

Minimum Regulatory Requirements:

Each application shall include geologic information in sufficient detail to assist in: determining the probable hydrologic consequences of the operation upon the quality and quantity of surface and ground water in the permit and adjacent areas, including the extent to which surface- and ground-water monitoring is necessary; determining all potentially acid- or toxic-forming strata down to and including the stratum immediately below the coal seam to be mined; determining whether reclamation can be accomplished and whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area; and, preparing the subsidence control plan.

Geologic information shall include, at a minimum, a description of the geology of the proposed permit and adjacent areas down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining. This description shall include the areal and structural geology of the permit and adjacent areas, and other parameters which influence the required reclamation and it shall also show how the areal and structural geology may affect the occurrence, availability, movement, quantity, and quality of potentially impacted surface and ground water. It shall be based on maps and plans required as resource information for the plan, detailed site specific information as required below, and, geologic literature and practices.

For any portion of a permit area in which the strata down to the coal seam to be mined will be removed or are already exposed, samples shall be collected and analyzed from test borings; drill cores; or fresh, unweathered, uncontaminated samples from rock outcrops down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining. The analyses shall result in the following:

(1) Logs showing the lithologic characteristics including physical properties and thickness of each stratum and location of ground water where occurring;
(2) Chemical analyses identifying those strata that may contain acid- or toxic-forming, or alkalinity-producing materials and to determine their content, except that the Division may find that the analysis for alkalinity-producing material is unnecessary; and
(3) Chemical analysis of the coal seam for acid- or toxic-forming materials, including the total sulfur and pyritic sulfur, except that the Division may find that the analysis of pyritic sulfur content is unnecessary.

For lands within the permit and adjacent areas where the strata above the coal seam to be mined will not be removed, samples shall be collected and analyzed from test borings or drill cores to provide the following data:

(1) Logs of drill holes showing the lithologic characteristics, including physical properties and thickness of each stratum that may be impacted, and location of ground water where occurring;
(2) Chemical analyses for acid- or toxic-forming or alkalinity-producing materials and their content in the strata immediately above and below the coal seam to be mined;
(3) Chemical analyses of the coal seam for acid- or toxic-forming materials, including the total sulfur and pyritic sulfur, except that the Division may find that the analysis of pyrite sulfur content is unnecessary; and
(1) For standard room-and-pillar mining operations, the thickness and engineering properties of clays or soft rock such as clay shale, if any, in the stratum immediately above and below each coal seam to be mined.

If determined to be necessary to protect the hydrologic balance, to minimize or prevent subsidence, or to meet the performance standards, the Division may require the collection, analysis, and description of additional geologic information.

An applicant may request the Division to waive in whole or in part the requirements of the borehole information or analysis required of this section. The waiver may be granted only if the Division finds in writing that the collection and analysis of such data are unnecessary because other information having equal value or effect is available to the Division in a satisfactory form.

Analysis:

Plate 21 (Surface Geology) has been modified for the current application by including the IBC area boundary and changing the scale to 1:24,000. Plate 21 has been modified in the current submittal to include surface geology coverage the entire IBC area or extend to adjacent areas to the north.

Findings:

The information provided in the application is adequate to meet the minimum requirements of the Geologic Resource Information section of the regulations.

HYDROLOGIC RESOURCE INFORMATION

Regulatory Reference: 30 CFR 701.5, 784.14; R645-100-200, -301-724.

Minimum Regulatory Requirements:

Sampling and Analysis.

All water-quality analyses performed to meet the requirements of this section shall be conducted according to the methodology in the 15th edition of "Standard Methods for the Examination of Water and Wastewater," which is incorporated by reference, or the methodology in 40 CFR Parts 136 and 434. Water-quality sampling shall be conducted according to either methodology listed above when feasible. This incorporation by reference was approved by the Director of the Federal Register on October 26, 1983. This document is incorporated as it exists on the date of the approval, and a notice of any change in it will be published in the Federal Register.

Baseline information.

The application shall include the following baseline hydrologic information, and any additional information required by the Division.

(1) Ground-water information. The location and ownership for the permit and adjacent areas of existing wells, springs, and other ground-water resources, seasonal quality and quantity of ground water, and usage. Water-quality descriptions shall include, at a minimum, total dissolved solids or specific conductance corrected to 25 C, pH, total iron, and total manganese. Ground-water quantity descriptions shall include, at a minimum, approximate rates of discharge or usage and depth to the water in the coal seam, and each water-bearing stratum above and potentially impacted stratum below the coal seam.
(2) Surface-water information. The name, location, ownership, and description of all surface-water bodies such as

streams, lakes, and impoundments, the location of any discharge into any surface-water body in the proposed permit and adjacent areas, and information on surface-water quality and quantity sufficient to demonstrate seasonal variation and water usage. Water-quality descriptions shall include, at a minimum, baseline information on total suspended solids, total dissolved solids or specific conductance corrected to 25 C, pH, total iron, and total manganese. Baseline acidity and alkalinity information shall be provided if there is a potential for acid drainage from the proposed mining operation. Water-quantity descriptions shall include, at a minimum, baseline information on seasonal flow rates.

(3) Supplemental information. If the determination of the probable hydrologic consequences (PHC) indicates that adverse impacts on or off the proposed permit area may occur to the hydrologic balance, or that acid-forming or toxic-forming material is present that may result in the contamination of ground-water or surface-water supplies, then supplemental information shall be provided to evaluate such probable hydrologic consequences and to plan remedial and reclamation activities. Such supplemental information may be based upon drilling, aquifer tests, hydrogeologic analysis of the water-bearing strata, flood flows, or analysis of other water-quality or quantity characteristics.

Baseline cumulative impact area information.

(1) Hydrologic and geologic information for the cumulative impact area necessary to assess the probable cumulative hydrologic impacts of the proposed operation and all anticipated mining on surface- and ground-water systems shall be provided if available from appropriate Federal or State agencies.
(2) If this information is not available from such agencies, then the applicant may gather and submit this information as part of the permit application.
(3) The permit shall not be approved until the necessary hydrologic and geologic information is available.

Modeling.

The use of modeling techniques, interpolation, or statistical techniques may be included as part of the permit application, but actual surface- and ground-water information may be required for each site even when such techniques are used.

Probable hydrologic consequences determination.

1.) The application shall contain a determination of the probable hydrologic consequences (PHC) of the proposed operation based upon the quality and quantity of surface and ground water under seasonal flow conditions for the proposed permit and adjacent areas.
2.) The PHC determination shall be based on baseline hydrologic, geologic, and other information collected for the permit application and may include data statistically representative of the site.
3.) The PHC determination shall include findings on: whether adverse impacts may occur to the hydrologic balance; whether acid-forming or toxic-forming materials are present that could result in the contamination of surface or ground water supplies; and, what impact the proposed operation will have on sediment yield from the disturbed area; acidity, total suspended and dissolved solids, and other important water quality parameters of local impact; flooding or streamflow alteration; ground water and surface water availability; and other characteristics as required.
4.) An application for a permit revision shall be reviewed by the Division to determine whether a new or updated PHC shall be required.

Analysis:

Sampling and Analysis

Sampling and Analysis of the hydrologic regime affected by the proposed addition of the Mathis IBC has been adequately characterized. A total of four springs and two streams have been monitored since approximately 1997. Analysis includes field parameters and lab analysis of major cations, anions, Total Dissolved Solids and other trace inorganic constituents for sites with documented flow.

Baseline Information

Adequate baseline information has been collected for both groundwater and surface water characterization and is included in the March 2002 Mayo and Associates, LC, report. Data from the four springs, two streams and stock watering ponds has been be submitted to the Division in electronic-form and incorporated into the Division Water database. The water monitoring sites had been previously monitored as part of the Willow Creek Mine permit. The entire history of the sites will be available in the Andalex Centennial Mine.

Baseline Cumulative Impact Area Information

The Cumulative Hydrologic Impact Area (CHIA) in the currently approved MRP provides adequate characterization of the area. No new hydrologic basins, other than those authorized in the approved permit, are affected by the addition of the Mathis IBC.

Probable Hydrologic Consequences Determination

A detailed Probable Hydrologic Consequence Determination has been provided in the application in the form of a report conducted by Mayo and Associates, LC. The report can be found in the MRP in appendix L. The report concludes that any affect to the local hydrologic regime due to the proposed mining is highly unlikely.

Findings:

The information provided in the application is adequate to meet the minimum requirements of the Hydrologic Resource Information section of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Minimum Regulatory Requirements:

The permit application must include as part of the Resource Information, the following maps, plans and cross sections:

Affected area boundary maps

The boundaries of all areas proposed to be affected over the estimated total life of the underground mining activities, with a description of size, sequence, and timing of the mining of subareas for which it is anticipated that additional permits will be sought.

Coal resource and geologic information maps

Nature, depth, and thickness of the coal seams to be mined, any coal or rider seams above the seam to be mined, each stratum of the overburden, and the stratum immediately below the lowest coal seam to be mined. All coal crop lines and the strike and dip of the coal to be mined within the proposed permit area.

Cultural resource maps

The boundaries of any public park and locations of any cultural and historical resources listed or eligible for listing in the National Register of Historic Places. Each cemetery that is located in or within 100 feet of the proposed permit area. Any land within the proposed permit area which is within the boundaries of any units of the National System of Trails or the Wild and Scenic Rivers System, including study rivers designated under Section 5(a) of the Wild and Scenic Rivers Act. Any other relevant information required by the Division.

Existing structures and facilities maps

Location and dimensions of existing areas of spoil, waste, coal development waste, and noncoal waste disposal, dams, embankments, other impoundments, and water treatment and air pollution control facilities within the proposed permit area.

Existing surface configuration maps

Sufficient slope measurements to adequately represent the existing land surface configuration of the area affected by surface operations and facilities, measured and recorded according to the following: each measurement shall consist of an angle of inclination along the prevailing slope extending 100 linear feet above and below or beyond the coal outcrop or the area to be disturbed or, where this is impractical, at locations specified by the Division; where the area has been previously mined, the measurements shall extend at least 100 feet beyond the limits of mining disturbances, or any other distance determined by the Division to be representative of the premining configuration of the land; and, slope measurements shall take into account natural variations in slope, to provide accurate representation of the range of natural slopes and reflect geomorphic differences of the area to be disturbed.

Mine workings maps

Location and extent of know workings of active, inactive, or abandoned underground mines, including mine openings to the surface within the proposed permit and adjacent areas. Location and extent of existing or previously surface-mined areas within the proposed permit area.

Monitoring and sampling location maps

Elevations and locations of test borings and core samplings. Elevations and locations of monitoring stations used to gather data on water quality and quantity, fish and wildlife, and air quality, if required, in preparation of the application

Permit area boundary maps

The boundaries of land within the proposed permit area upon which the applicant has the legal right to enter and begin underground mining activities.

Analysis:

Coal Resource and Geologic Information Maps

Plate 29 has been modified to illustrate the proposed coal resource to be mined. No additional information is requested for the current IBC application.

Cultural Resource Maps

No additional surface disturbance is anticipated. No additional information is required.

Existing Structures and Facilities Maps

No modifications to the current Surface Facilities is proposed in the IBC application.

Mine Workings Maps

Modifications to the Mine Workings are illustrated on Plate 29. No additional information is required.

Monitoring Sampling Location Maps

As part of the current submittal, Figure 6 of Appendix N and Figure IV-11 (Groundwater Surface water monitoring Location maps) have been modified to include monitoring locations added to the plan due to the addition of the Mathis IBC (see Operation Plan – Hydrologic Information section of technical analysis.

Permit Area Boundary Maps

Plates 1 through 4 have been modified to include the Incidental Boundary Change.

Surface and Subsurface Ownership Maps

Plate 2 illustrates the Mathis tract is owned by Mathis Land, Inc. Plate 3 illustrates the Mathis tract as 'Fee' land controlled by Mathis Land, Inc.

Findings:

The information provided in the application is adequate to meet the minimum requirements of the Maps, Plans, and Cross Sections of Resource Information section of the regulations.

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR 784.2, 784.11; R645-301-231, -301-526, -301-528.

Minimum Regulatory Requirements:

The objectives of this section is to ensure that the Division is provided with comprehensive and reliable information on proposed underground mining activities, and to ensure that those activities are allowed to be conducted only in compliance with the regulatory program.

Provide a general description of the mining operations proposed to be conducted during the life of the mine within the proposed permit area, including, at a minimum, the following: a narrative description of the type and method of coal mining procedures and proposed engineering techniques, anticipated annual and total production of coal, by tonnage, and the major equipment to be used for all aspects of those operations; and, a narrative explaining the construction, modification, use, maintenance, and removal of the following facilities (unless retention of such facility is necessary for postmining land use is specified.) The following facilities must be described: dams, embankments, and other impoundments; overburden and topsoil handling and storage areas and structures; coal removal, handling, storage, cleaning, and transportation areas and structures; spoil, coal processing waste, mine development waste, and noncoal waste removal, handling, storage, transportation, and disposal areas and structures; mine facilities; and, water pollution control facilities.

Analysis:

Type and Method of Mining Operations

Of the 2.3 million tons of coal in the Mathis Tract, much of the coal will not be recovered as part of barrier pillars according to the approved mine plan. The panel-barrier-panel mine design is needed due to the 2,600 feet to 2,900 feet of overburden and the massive sandstone formations above the coal. The barriers pillars are needed to prevent massive caving. Most mines typically mine only to 2,500 feet of overburden. Therefore, the Applicant is recovering coal that many operators would not attempt to recover.

Facilities and Structures

The Applicant does not propose to build any new surface facilities in connection with the Mathis Tract.

Findings:

The Applicant has met the minimum requirements of the Operation Plan – Mining Operations and Facilities section of the regulations.

EXISTING STRUCTURES:

Regulatory Reference: 30 CFR 784.12; R645-301-526.

Minimum Regulatory Requirements:

"Existing Structure" means a structure or facility used in connection with or to facilitate coal mining and reclamation operations for which construction began prior to January 21, 1981.

Provide a description of each existing structure proposed to be used in connection with or to facilitate the surface coal mining and reclamation operation. The description shall include: the location; plans of the structure which describe its current condition; approximate dates on which construction of the existing structure was begun and completed; and, a showing, including relevant monitoring data or other evidence, whether the structure meets the permanent program performance standards or, if the structure does not meet the permanent program performance standards, a showing whether the structure meets the interim program performance standards.

Provide a compliance plan for each existing structure proposed to be modified or reconstructed for use in connection with or to facilitate the surface coal mining and reclamation operation. The compliance plan shall include: design specifications for the modification or reconstruction of the structure to meet the permanent program design and performance standards; a construction schedule which shows dates for beginning and completing interim steps and final reconstruction; provisions for monitoring the structure during and after modification or reconstruction to ensure that the permanent program performance standards are met; and, a showing that the risk of harm to the environment or to public health or safety is not significant during the period of modification or reconstruction.

Analysis:

As stated in Section R645-301-526.110 of the PAP no existing structures exist in the Mathis lease area.

Findings:

The information provided in the proposed amendment is adequate to meet the requirements of the Operation Plan – Existing Structures section of the regulations.

RELOCATION OR USE OF PUBLIC ROADS

Regulatory Reference: 30 CFR 784.18; R645-301-521, -301-526.

Minimum Regulatory Requirements:

Describe, with appropriate maps and cross sections, the measures to be used to ensure that the interests of the public and landowners affected are protected if, the applicant seeks to have the Division approve conducting the proposed underground mining activities within 100 feet of the right-of-way line of any public road, except where mine access or haul roads join that right-of-way, or relocating a public road.

Analysis:

The Applicant will not relocate or use any roads in the Mathis Tract. Should any road in the Mathis Tract be damage the Applicant would be required to mitigate the damage.

Findings:

The Applicant has adequately addressed the minimum requirements of the Operation Plan – Relocation or Use of Public Roads section of the regulations.

COAL RECOVERY

Regulatory Reference: 30 CFR 817.59; R645-301-522.

Minimum Regulatory Requirements:

Underground mining activities shall be conducted so as to maximize the utilization and conservation of the coal, while utilizing the best technology currently available to maintain environmental integrity, so that re-affecting the land in the future through surface coal mining operations is minimized.

Analysis:

The Mathis Tract is part of a larger section that the Applicant proposes to mine. The coal in the Mathis Tract is located beneath 2,600 feet to 2,900 feet of cover. Due to the deep cover and the massive sandstone formations above the coal, the Applicant will have to leave large barrier pillars. The design is similar to that already in use.

Most operators usually do not mine coal when the cover is greater than 2,500 feet. Therefore, any coal that the Applicant can recover is coal that usually not recovered. The Division has reviewed the general mining plan and determined that the Applicant is maximizing coal recover.

Findings:

The Applicant has adequately addressed the minimum requirements of the Operation Plan – Coal Recovery section of the regulations.

SUBSIDENCE CONTROL PLAN

Regulatory Reference: 30 CFR 784.20, 817.121, 817.122; R645-301-521, -301-525, -301-724.

Minimum Regulatory Requirements:

Renewable resources survey

Include a survey, which shall show whether structures or renewable resource lands exist within the proposed permit area and adjacent area and whether subsidence, if it occurred, could cause material damage or diminution of reasonably foreseeable use of such structures or renewable resource lands. If the survey shows that no such structures or renewable resource lands exist, or no such material damage or diminution could be caused in the event of mine subsidence, and if the Division agrees with such conclusion, no further information need be provided in the application under this section.

Subsidence control plan

In the event the survey shows that such structures or renewable resource lands exist, and that subsidence could cause material damage or diminution of value or foreseeable use of the land, or if the Division determines that such damage or diminution could occur, the application shall include a subsidence control plan which shall contain the following information:

1.) A description of the method of coal removal, such as longwall mining, room-and-pillar removal, hydraulic mining, or other extraction methods, including the size, sequence, and timing for the development of underground workings.
2.) A map of underground workings which describes the location and extent of areas in which planned-subsidence mining methods will be used and which includes all areas where measures will be taken to prevent or minimize subsidence and subsidence related damage and where appropriate, to correct subsidence-related material damage.
3.) A description of the physical conditions, such as depth of cover, seam thickness, and lithology, which affect the likelihood or extent of subsidence and subsidence-related damage.
4.) A description of monitoring, if any, needed to determine the commencement and degree of subsidence so that, when appropriate, other measures can be taken to prevent, reduce, or correct material damage.
5.) Except for those areas where planned subsidence is projected to be used, a detailed description of the subsidence control measures that will be taken to prevent or minimize subsidence and subsidence-related damage, including, but not limited to: backstowing or backfilling of voids; leaving support pillars of coal; leaving areas in which no coal is removed, including a description of the overlying area to be protected by leaving the coal in place; and, taking measures on the surface to prevent material damage or lessening of the value or reasonably foreseeable use of the surface.
6.) A description of the anticipated effects of planned subsidence, if any.
7.) A description of the measures to be taken to mitigate or remedy any subsidence-related material damage to, or diminution in value or reasonably foreseeable use of the land, or structures or facilities to the extent required under State law.
8.) Other information specified by the Division as necessary to demonstrate that the operation will be conducted in accordance with the performance standards for subsidence control.

Performance standards for subsidence control

The operator shall either adopt measures consistent with known technology which prevent subsidence from causing material damage to the extent technologically and economically feasible, maximize mine stability, and maintain the value and reasonably foreseeable use of surface lands; or, adopt mining technology which provides for planned subsidence in a predictable and controlled manner. Nothing in this part shall be construed to prohibit the standard method of room-and-pillar mining.

The operator shall comply with all provisions of the approved subsidence control plan.

The operator shall correct any material damage resulting from subsidence caused to surface lands, to the extent technologically and economically feasible, by restoring the land to a condition capable of maintaining the value and reasonably foreseeable uses which it was capable of supporting before subsidence, and, to the extent required under applicable provisions of State law, either correct material damage resulting from subsidence caused to any structures or facilities by repairing the damage or compensate the owner of such structures or facilities in the full amount of the diminution in value resulting from the subsidence. Repair of damage includes rehabilitation, restoration, or replacement of damaged structures or facilities. Compensation may be accomplished by the purchase prior to mining of a non-cancelable premium-prepaid insurance policy.

Underground mining activities shall not be conducted beneath or adjacent to: public buildings and facilities; churches, schools, and hospitals; or, impoundments with a storage capacity of 20 acre-feet or more or bodies of water with a volume of 20 acre-feet or more, unless the subsidence control plan demonstrates that subsidence will not cause material damage to, or reduce the reasonably foreseeable use of, such features or facilities. If the Division determines that it is necessary in order to minimize the potential for material damage to the features or facilities described above or to any aquifer or body of water that serves as a significant water source for any public water supply system, it may limit the percentage of coal extracted under or adjacent thereto.

If subsidence causes material damage to any of the features or facilities, the Division may suspend mining under or adjacent to such features or facilities until the subsidence control plan is modified to ensure prevention of further material damage to such features or facilities.

The Division shall suspend underground mining activities under urbanized areas, cities, towns, and communities, and adjacent to industrial or commercial buildings, major impoundments, or perennial streams, if imminent danger is found to inhabitants of the urbanized areas, cities, towns, or communities.

Within a schedule approved by the Division, the operator shall submit a detailed plan of the underground workings. The detailed plan shall include maps and descriptions, as appropriate, of significant features of the underground mine, including the size, configuration, and approximate location of pillars and entries, extraction ratios, measures taken to prevent or minimize subsidence and related damage, areas of full extraction, and other information required by the Division. Upon request of the operator, information submitted with the detailed plan may be held as confidential.

Notification

At least 6 months prior to mining, or within that period if approved by the Division, the underground mine operator shall mail a notification to all owners and occupants of surface property and structures above the underground workings. The notification shall include, at a minimum, identification of specific areas in which mining will take place, dates that specific areas will be undermined, and the location or locations where the operator's subsidence control plan may be examined.

Analysis:

Renewable Resources Survey

The Applicant did not conduct a renewable resource survey specifically for the Mathis Tract. The current renewable resource survey identified water, grazing and wildlife habitat as renewable resources in the permit area.

Because the Applicant did not show that the Mathis Tract had no renewable resources, the Division assumes that they exist. The currently approved Subsidence Monitoring Control plan for the permit area is considered adequate for the Mathis Tract.

Subsidence Control Plan

The subsidence control plan for the Mathis Tract is in the IBC PHC to Appendix L. The plan is as follows:

Because of the support of the unmined coal barriers and the structural strength of the overlying massive sandstone units, subsidence at the land surface is minimal to non-existent. It has been the experience at the Tower Mine that in areas where the overburden exceeds approximately 1,000 feet, no measurable subsidence at the land surface occurs (Tower Mine subsidence data, 2002.) Mining in the 240-acre IBC area will occur under more than 2,600 feet of cover. Thus, no subsidence in the IBC area is anticipated.

The 2000 annual subsidence survey showed that not measurable subsidence occurred at the Centennial project. Because of the deep cover and the barrier pillars the Division concerns with the general finding of no measurable subsidence.

Performance Standards for Subsidence Control

The Applicant is required to mitigate any subsidence damage that should occur.

Notification

The Applicant is required to notify all surface owners 6 months before mining occurs.

Findings:

The Applicant has adequately addressed the minimum requirements of the Operation Plan – Subsidence Control Plan section of the regulations.

ROAD SYSTEMS AND OTHER TRANSPORTATION FACILITIES

Regulatory Reference: 30 CFR 784.24, 817.150, 817.151; R645-301-521, -301-527, -301-534, -301-732.

Minimum Regulatory Requirements:

Road classification system

Each road shall be classified as either a primary road or an ancillary road. A primary road is any road which is: used for transporting coal or spoil; frequently used for access or other purposes for a period in excess of six months; or, to be retained for an approved postmining land use. An ancillary road is any road not classified as a primary road.

Analysis:

Road Classification System

No new roads will be constructed as part of the Mathis Tract IBC. Information currently provided in the MRP is considered adequate information.

Findings:

The Applicant has adequately addressed the minimum requirements of the Operation Plan – Road Systems and Other Transportation Facilities section of the regulations.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Minimum Regulatory Requirements:

General

All underground mining and reclamation activities shall be conducted to minimize disturbance of the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area, and to support approved postmining land uses in accordance with the terms and conditions of the approved permit and the performance standards of this part. The Division may require additional preventative, remedial, or monitoring measures to assure that material damage to the hydrologic balance outside the permit area is prevented. Mining and reclamation practices that minimize water pollution and changes in flow shall be used in preference to water treatment.

Groundwater Monitoring

In order to protect the hydrologic balance underground mining activities shall be conducted according to the hydrologic reclamation plan. Ground-water quality shall be protected by handling earth materials and runoff in a manner that minimizes acidic, toxic, or other harmful infiltration to ground-water systems and by managing excavations and other disturbances to prevent or control the discharge of pollutants into the ground water.

Ground-water monitoring shall be conducted according to the ground-water monitoring plan. The Division may require additional monitoring when necessary. Ground-water monitoring data shall be submitted every 3 months to the Division or more frequently as prescribed by the Division. Monitoring reports shall include analytical results from each sample taken during the reporting period. When the analysis of any ground-water sample indicates noncompliance with the permit conditions, the operator shall promptly notify the Division and immediately provide for any accelerated or additional monitoring necessary to determine the nature and extent of noncompliance and the results of the noncompliance. Plans and hydrologic information to evaluate and mitigate the noncompliance situation and information relevant to the PHC shall be submitted to the Division as required.

Ground-water monitoring shall proceed through mining and continue during reclamation until bond release. The Division may modify the monitoring requirements including the parameters covered and the sampling frequency if the operator demonstrates, using the monitoring data obtained, that: the operation has minimized disturbance to the prevailing hydrologic balance in the permit and adjacent areas and prevented material damage to the hydrologic balance outside the permit area; water quantity and quality are suitable to support approved postmining land uses; or, monitoring is no longer necessary to achieve the purposes set forth in the monitoring plan.

Equipment, structures, and other devices used in conjunction with monitoring the quality and quantity of ground water onsite and offsite shall be properly installed, maintained, and operated and shall be removed by the operator when no longer needed.

Surface Water Monitoring

In order to protect the hydrologic balance, underground mining activities shall be conducted according to the approved plan, and the following: surface-water quality shall be protected by handling earth materials, ground-water discharges, and runoff in a manner that minimizes the formation of acidic or toxic drainage; prevents, to the extent possible using the best technology currently available, additional contribution of suspended solids to streamflow outside the permit area; and otherwise prevent water pollution. If drainage control, restabilization and revegetation of disturbed areas, diversion of runoff, mulching, or other reclamation and remedial practices are not adequate to meet water-quality standards and effluent limitations, the operator shall use and maintain the necessary water-treatment facilities or water-quality controls. Surface-water quantity and flow rates shall be protected by handling earth materials and runoff in accordance with the steps outlined in the approved plan.

Surface-water monitoring shall be conducted according to the approved surface-water monitoring plan. The Division may require additional monitoring when necessary. Surface-water monitoring data shall be submitted every 3 months to the Division or more frequently as prescribed by the Division. Monitoring reports shall include analytical results from each sample taken during the reporting period. When the analysis of any surface-water sample indicates noncompliance with the permit conditions, the operator shall promptly notify the Division and immediately provide for any accelerated or additional monitoring necessary to determine the nature and extent of noncompliance and the results of the noncompliance. Plans and hydrologic information to evaluate and mitigate the noncompliance situation and information relevant to the PHC shall be submitted to the Division as required. The reporting requirements of the water monitoring plan do not exempt the operator from meeting any National Pollutant Discharge Elimination System (NPDES) reporting requirements.

Surface-water monitoring shall proceed through mining and continue during reclamation until bond release. The Division may modify the monitoring requirements, except those required by the NPDES permitting authority, including the parameters covered and sampling frequency if the operator demonstrates, using the monitoring data obtained, that: the operation has minimized disturbance to the hydrologic balance in the permit and adjacent areas and prevented material damage to the hydrologic balance outside the permit area; water quantity and quality are suitable to support approved postmining land uses; and, monitoring is no longer necessary to achieve the purposes set forth in the approved monitoring plan.

Equipment, structures, and other devices used in conjunction with monitoring the quality and quantity of surface water onsite and offsite shall be properly installed, maintained, and operated and shall be removed by the operator when no longer needed.

Analysis:

Ground-Water Monitoring

Included in the Mathis Lease IBC, additional groundwater monitoring was recommended in the Probable Hydrologic Consequence report (PHC) conducted by Mayo and Associates, LC. A total of four springs were monitored. The report recommends continued monitoring of Springs B352 and B361. Both springs/seeps issue from the North Horn Formation. Spring B352 has demonstrated periodic flow with four samples being collected from 5/97 through 10/01 (six No Flows were recorded during the same time interval). Spring B361 has not produced any flow during the same time interval with nine visits to the site.

The Division recommended replacing the monitoring of Spring B361 with B351and the applicant has agreed to this modification. Although Spring B351 is not within the IBC, it is along strike, within the Price River Formation, has demonstrated flow four of 12 visits, and has similar water quality to Spring B352. The Division also recommended including flow and dissolved Magnesium to the operational water quality parameter list (Table **6**, Mayo and Associates report), which the applicant has also implemented.

In the current submittal, the applicant is no longer requesting a reduction of water monitoring after two years of operational solute data to field parameters-only. Monitoring at all sites will continue at a quarterly frequency sampling for operational parameters.

Surface-Water Monitoring

No additional surface-water monitoring sites are proposed with the addition of the Mathis Lease. None are requested.

Findings:

The information provided in the application is adequate to meet the minimum requirements of the Operation Plan - Hydrologic Information section of the regulations.

SUPPORT FACILITIES AND UTILITY INSTALLATIONS

Regulatory Reference: 30 CFR 784.30, 817.180, 817.181; R645-301-526.

Minimum Regulatory Requirements:

Each applicant for an underground coal mining and reclamation permit shall submit a description, plans, and drawings for each support facility to be constructed, used, or maintained within the proposed permit area. The plans and drawings shall include a map, appropriate cross sections, design drawings, and specifications sufficient to demonstrate compliance.

Support facilities shall be operated in accordance with a permit issued for the mine or coal preparation plant to which it is incident or from which its operation results. In addition to the other provisions of this part, support facilities shall be located,

maintained, and used in a manner that: prevents or controls erosion and siltation, water pollution, and damage to public or private property; and, to the extent possible using the best technology currently available, minimizes damage to fish, wildlife, and related environmental values and minimizes additional contributions of suspended solids to streamflow or runoff outside the permit area. Any such contributions shall not be in excess of limitations of State or Federal law.

All surface and underground mining activities shall be conducted in a manner which minimizes damage, destruction, or disruption of services provided by oil, gas, and water wells; oil, gas, and coal-slurry pipelines, railroads; electric and telephone lines; and water and sewage lines which pass over, under, or through the permit area, unless otherwise approved by the owner of those facilities and the Division.

Support facilities shall be operated in accordance with a permit issued for the mine or coal preparation plant to which it is incident or from which its operation results. In addition to the other provisions of this part, support facilities shall be located, maintained, and used in a manner that prevents or controls erosion and siltation, water pollution, and damage to public or private property. Support facilities shall, to the extent possible using the best technology currently available, minimizes damage to fish, wildlife, and related environmental values; and, minimizes additional contributions of suspended solids to streamflow or runoff outside the permit area. Any such contributions shall not be in excess of limitations of State or Federal law.

Analysis:

No additional support facilities or utilities will be installed as part of the Mathis Tract. The currently approved MRP adequately addresses this section.

Findings:

The Applicant has adequately addressed the minimum requirements of the Operation Plan – Support Facilities and Utility Installation section of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Minimum Regulatory Requirements:

Each application shall contain maps, plans, and cross sections which show the mining activities to be conducted, the lands to be affected throughout the operation, and any change in a facility or feature to be caused by the proposed operations, if the facility or feature was shown and described as an existing structure.

The following shall be shown for the proposed permit area:

Affected area maps

The boundaries of all areas proposed to be affected over the estimated total life of all mining activities and reclamation activities, with a description of size, sequence, and timing of phased reclamation activities and treatments. All maps and cross sections used for mining design and mining operations shall clearly show the affected and permit area boundaries in reference to the reclamation work being accomplished.

Mining facilities maps

Location of each facility used in conjunction with mining operations. Such structures and facilities shall include, but not be limited to: buildings, utility corridors, roads, and facilities to be used in mining and reclamation operations or by others within the permit area; each coal storage, cleaning, and loading area; each topsoil, spoil, coal preparation waste, underground development waste, and noncoal waste storage area; each water diversion, collection, conveyance, treatment, storage and discharge facility; each source of waste and each waste disposal facility relating to coal processing or pollution control; each facility to be used to protect and enhance fish and wildlife related environmental values; each explosives storage and handling facility; location of each sedimentation pond, permanent water impoundment, coal processing waste bank, and coal processing water dam and embankment, and disposal areas for underground development waste and excess spoil; and, each plan or profile, at cross sections

specified by the Division, of the anticipated surface configuration to be achieved for the affected areas during mining operations.

Mine workings maps

Location and extent of known workings of proposed, active, inactive, or abandoned underground mines, including mine openings to the surface within the proposed permit and adjacent areas. Location and extent of existing or previously surface-mined areas within the proposed permit area.

Monitoring and sampling location maps

Elevations and locations of test borings and core samplings. Elevations and locations of monitoring stations used to gather data on water quality and quantity, subsidence, fish and wildlife, and air quality, as required during mining operations.

Certification Requirements

Cross sections, maps, and plans required to show the design, location, elevation, or horizontal or vertical extent of the land surface or of a structure or facility used to conduct mining and reclamation operations shall be prepared by, or under the direction of, and certified by a qualified, registered, professional engineer, a professional geologist, or in any State which authorizes land surveyors to prepare and certify such cross sections, maps, and plans, a qualified, registered, professional land surveyor, with assistance from experts in related fields such as landscape architecture.

Each detailed design plan for an impounding structure that meets or exceeds the size or other criteria of the Mine Safety and Health Administration, 30 CFR Section 77.216(a) shall: be prepared by, or under the direction of, and certified by a qualified registered professional engineer with assistance from experts in related fields such as geology, land surveying, and landscape architecture; include any geotechnical investigation, design, and construction requirements for the structure; describe the operation and maintenance requirements for each structure; and, describe the timetable and plans to remove each structure, if appropriate.

Each detailed design plan for an impounding structure that does not meet the size or other criteria of 30 CFR Section 77.216(a) shall: be prepared by, or under the direction of, and certified by a qualified, registered, professional engineer, or in any State which authorizes land surveyors to prepare and certify such plans, a qualified, registered, professional land surveyor, except that all coal processing waste dams and embankments shall be certified by a qualified, registered, professional engineer; include any design and construction requirements for the structure, including any required geotechnical information; describe the operation and maintenance requirements for each structure; and, describe the timetable and plans to remove each structure, if appropriate.

Analysis:

Affected Area Maps

The Division usually considers the affected area to be the same as the permit area. Plate 1-A and other maps in the PAP show the proposed permit areas.

Mining Facilities Maps

No new mine facilities will be built because of the Mathis Tract.

Mine Workings Maps

Plate 29, Isopachs, Current Mining, Mining Projections, Cover, Drillhole Location, show the location of the current and proposed mine workings. The information on the Plate 29 is adequate for the Division to determine the general mine plan. The map also shows timing and sequence of the area.

Findings:

The information provided in the proposed amendment is adequate to meet the requirements of the Operation Plan – Maps, Plans and Cross Sections of Mining Operations section.

RECLAMATION PLAN

APPROXIMATE ORIGINAL CONTOUR RESTORATION

Regulatory Reference: 30 CFR 784.15, 785.16, 817.102, 817.107, 817.133; R645-301-234, -301-270, -301-271, -301-412, -301-413, -301-512, -301-531, -301-533, -301-553, -301-536, -301-542, -301-731, -301-732, -301-733, -301-764.

Minimum Regulatory Requirements:

Note :The following requirements have been suspended insofar as they authorize any variance from approximate original contour for surface coal mining operations in any area which is not a steep slope area.

Criteria for permits incorporating variances from approximate original contour restoration requirements.

The Division may issue a permit for nonmountaintop removal mining which includes a variance from the backfilling and grading requirements to restore the disturbed areas to their approximate original contour. The permit may contain such a variance only if the Division finds, in writing, that the applicant has demonstrated, on the basis of a complete application, that the following requirements are met:

1.) After reclamation, the lands to be affected by the variance within the permit area will be suitable for an industrial, commercial, residential, or public postmining land use (including recreational facilities).
2.) The criteria for the proposed post mining land use will be met.
3.) The watershed of lands within the proposed permit and adjacent areas will be improved by the operations when compared with the condition of the watershed before mining or with its condition if the approximate original contour were to be restored. The watershed will be deemed improved only if: the amount of total suspended solids or other pollutants discharged to ground or surface water from the permit area will be reduced, so as to improve the public or private uses or the ecology of such water, or flood hazards within the watershed containing the permit area will be reduced by reduction of the peak flow discharge from precipitation events or thaws; the total volume of flow from the proposed permit area, during every season of the year, will not vary in a way that adversely affects the ecology of any surface water or any existing or planned use of surface or ground water; and, the appropriate State environmental agency approves the plan.
4.) The owner of the surface of the lands within the permit area has knowingly requested, in writing, as part of the application, that a variance be granted. The request shall be made separately from any surface owner consent given for right-of-entry and shall show an understanding that the variance could not be granted without the surface owner's request.

If a variance is granted, the requirements of the post mining land use criteria shall be included as a specific condition of the permit, and, the permit shall be specifically marked as containing a variance from approximate original contour.

A permit incorporating a variance shall be reviewed by the Division at least every 30 months following the issuance of the permit to evaluate the progress and development of the surface coal mining and reclamation operations to establish that the operator is proceeding in accordance with the terms of the variance. If the permittee demonstrates to the Division that the operations have been, and continue to be, conducted in compliance with the terms and conditions of the permit, the review specified need not be held. The terms and conditions of a permit incorporating a variance may be modified at any time by the Division, if it determines that more stringent measures are necessary to ensure that the operations involved are conducted in compliance with the requirements of the regulatory program. The Division may grant variances only if it has promulgated specific rules to govern the granting of variances in accordance with the provisions of this section and any necessary, more stringent requirements.

Analysis:

No additional surface disturbance will take place. Therefore, no change to the currently approved AOC plan is needed.

Findings:

The Applicant has met the minimum requirements of the Reclamation Plan – Approximate Original Contour Restoration section of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Minimum Regulatory Requirements:

Each application shall contain maps, plans, and cross sections which show the reclamation activities to be conducted, the lands to be affected throughout the operation, and any change in a facility or feature to be caused by the proposed operations, if the facility or feature was shown and described as an existing structure.

The permit application must include as part of the reclamation plan information, the following maps, plans and cross sections:

Affected area boundary maps

The boundaries of all areas proposed to be affected over the estimated total life of all mining activities and reclamation activities, with a description of size, sequence, and timing of phased reclamation activities and treatments. All maps and cross sections used for reclamation design purposes shall clearly show the affected and permit area boundaries in reference to the reclamation work being accomplished.

Bonded area map

The permittee shall identify the initial and successive areas or increments for bonding on the permit application map and shall specify the bond amount to be provided for each area or increment. The bond or bonds shall cover the entire permit area, or an identified increment of land within the permit area upon which the operator will initiate and conduct surface coal mining and reclamation operations during the initial term of the permit. As surface coal mining and reclamation operations on succeeding increments are initiated and conducted within the permit area, the permittee shall file with the Division an additional bond or bonds to cover such increments. Independent increments shall be of sufficient size and configuration to provide for efficient reclamation operations should reclamation by the Division become necessary.

Analysis:

Affected Area Boundary Maps

The Division usually considers the affected area to be the same as the permit area. Plate 1-A and other maps shows the proposed permit boundaries.

Bonded Area Map

There will be no changes to the disturbed area

Findings:

The information provided in the proposed amendment is adequate to meet the requirements of the Maps, Plans and Cross Sections of Reclamation Operations section.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR 800; R645-301-800, et seq.

Minimum Regulatory Requirements:

Determination of bond amount

The amount of the bond required for each bonded area shall: be determined by the Division; depend upon the requirements of the approved permit and reclamation plan; reflect the probable difficulty of reclamation, giving consideration to such factors as topography, geology, hydrology, and revegetation potential; and, be based on, but not limited to, the estimated cost submitted by the permit applicant.

The amount of the bond shall be sufficient to assure the completion of the reclamation plan if the work has to be performed by the Division in the event of forfeiture, and in no case shall the total bond initially posted for the entire area under 1 permit be less than $10,000.

An operator's financial responsibility for repairing material damage resulting from subsidence may be satisfied by the liability insurance policy required in this section.

Terms and conditions for liability insurance

The Division shall require the applicant to submit as part of its permit application a certificate issued by an insurance company authorized to do business in the United States certifying that the applicant has a public liability insurance policy in force for the surface coal mining and reclamation operations for which the permit is sought. Such policy shall provide for personal injury and property damage protection in an amount adequate to compensate any persons injured or property damaged as a result of the surface coal mining and reclamation operations, including the use of explosives, and who are entitled to compensation under the applicable provisions of State law. Minimum insurance coverage for bodily injury and property damage shall be $300,000 for each occurrence and $500,000 aggregate.

The policy shall be maintained in full force during the life of the permit or any renewal thereof and the liability period necessary to complete all reclamation operations under this Chapter.

The policy shall include a rider requiring that the insurer notify the Division whenever substantive changes are made in the policy including any termination or failure to renew.

The Division may accept from the applicant, in lieu of a certificate for a public liability insurance policy, satisfactory evidence from the applicant that it satisfies applicable State self-insurance requirements approved as part of the regulatory program and the requirements of this section.

Analysis:

Determination of Bond Amount

Because no new surface disturbance will take place, no bond adjustment will occur at this time.

Findings:

The Applicant has adequately addressed the minimum requirements of the Reclamation Plan – Bonding and Insurance Requirements section of the regulations in the currently approved MRP.

CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT

Regulatory Reference: 30 CFR 784.14; R645-301-730.

Minimum Regulatory Requirements:

The Division must provide an assessment of the probable cumulative hydrologic impacts (CHIA) of the proposed operation and all anticipated mining upon surface- and ground-water systems in the cumulative impact area. The CHIA shall be sufficient to determine, for purposes of permit approval, whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area. The Division may allow the applicant to submit data and analyses relevant to the CHIA with the permit application. An application for a permit revision shall be reviewed by the Division to determine whether a new or updated CHIA shall be required.

As stated earlier in this Technical Analysis, this addition of the Mathis tract is considered an Incidental Boundary Change (IBC). To qualify as an IBC the following criteria was established: the increase in size of surface or subsurface disturbed area is less than 15 percent of the current permit area; operations will not occur outside the current Cumulative Hydrologic Impact Area; and no operations will occur outside hydrologic basins other than those approved in the currently approved permit. An additional report has been included in Appendix L that supports the Probable Hydrologic Consequence (PHC) assessment that no effects to the hydrologic balance are anticipated. No changes have been made to the current CHIA report.

RULES INDEX